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Niklas Linkewitsch

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CAVEN & AGHEVLI

c/o INTELLEVATE, LLC

P.O. BOX 52050

MINNEAPOLIS, MN 55402

EXAMINER

ZHU, BO HUI ALVIN

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/706,356	Applicant(s) LINKEWITSCH ET AL.	
	Examiner BO HUI A. ZHU	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 6, 8 - 10, 12 - 51 and 53 - 57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) Claims 1 - 6, 8 - 10, 12 - 29, 31 - 51 and 53 - 57 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on February 26, 2008 has been entered.

Claims 1 – 6, 8 – 10, 13 - 51 and 53 - 57 are pending.

Claims 1 – 6, 8 – 10, 13 – 29, 31 - 51 and 53 - 57 are rejected.

Claim 30 is objected to as being dependent upon a rejected base claim.

The claim objection of claim 12 has been withdrawn in view of the amendment to the claim.

The 112 2nd paragraph rejections of claims 39 – 41 and 49 – 51 have been withdrawn in view of the amendment to the claims.

Claim Objections

2. Claim 15 is objected to because the amendment indicates its status as “Currently Amended”, but apparently the claim has not been amended in any way. Appropriate correction is required.

Claim Rejections - 35 USC § 112 1st paragraph

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 – 6, 8 –10, 13, 14, 31 - 34 and 38 - 47 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regard to independent claim 1, the limitation “the processor logic is to selectively provide the justification command in response to a relative value of the phase comparison and a threshold” As best understood by the Examiner, the apparatus directed to by claim 1 corresponds to the De-Mapper system 200 shown on Fig. 4. The processor logic of claim 1 corresponds to the De-wrapper module 210 of Fig. 4. The original specification does not disclose the De-wrapper module 210 being capable of selectively providing justification commands in response to a relative value of a phase comparison and a threshold value. Similar argument applies to independent claims 31 and 38.

Claim Rejections - 35 USC § 112 2nd paragraph

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 21 and 22, it is not clear what is meant by “a value of the phase comparison”. Does it mean any one of the values being compared by the comparison, namely the second or the third clock; or something else?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1 – 6, 8 – 10, 13, 15 - 20, 23 – 29, 31 - 38, 40 – 48, 50, 51 and 53 - 57 are rejected under 35 U.S.C. 102(e) as being anticipated by Christiansen (US 2004/0042500).

(1) with regard to claims 1, 31 and 38:

Christiansen discloses a system and method, comprising: an interface (Re-timer system, on Fig. 4; 500 on Fig. 5); a data processor (340, on Fig. 4) coupled with the interface and to selectively provide a justification command and data from an input

signal (paragraph [0022]); a clock source to provide a first clock signal (RCLK2, on Fig. 5), wherein the clock source selectively modifies a phase of the first clock signal in response to the justification command (paragraph [0030]); and an elastic store device to selectively transfer the data based in part on the first clock signal (510, on Fig. 5).

Christiansen further discloses a first clock source to provide the first clock signal (RCLK2, on Fig. 5); a second clock source to provide a second clock signal (CLK, on Fig. 5); a third clock source to provide a third clock signal based on the second clock signal (CLK2, on Fig. 5); a transform device to selectively modify the phase of the first clock signal in response to the justification command (520, on Fig. 5; Fig. 8), to update a phase account to account for a phase impact of the justification command, and to update the phase account according to an amount of clock signal phase shift adjustment (paragraphs [0037] and [0038], the sum stored in accumulator 710 is a phase account; an incremental increase in the justification value sum is equivalent to receiving a positive justification command); and a phase comparator to selectively modify the phase of the second clock signal based on phase comparisons between the first and third clock signals (610, on Fig. 6; paragraph [0036]), wherein the processor logic is to selectively provide the justification command in response to a relative value (CLK2-A) of the phase comparison and a threshold value (PHA or PHB).

(2) with regard to claims 2 and 32:

Christiansen further discloses selectively add a cycle to the first clock signal in response to a negative justification command (paragraphs [0038] – [0046]; an incremental decrease in the justification value sum is equivalent to receiving a negative

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justification command) and a phase account being low enough to allow a phase adaptation (paragraph [0037]; the sum stored in accumulator 710 is a phase account, and because it is represented by $A \bmod M$, the value of the sum is limited to be between 0 and M).

(3) with regard to claims 3 and 33:

Christiansen further discloses selectively remove a cycle from the first clock signal in response to a positive justification command (paragraphs [0038] – [0046]; an incremental increase in the justification value sum is equivalent to receiving a positive justification command) and a phase account being low enough to allow a phase adaptation (paragraph [0037]; the sum stored in accumulator 710 is viewed as a phase account, and because it is represented by $A \bmod M$, the value of the sum is limited to be between 0 and M).

(4) with regard to claim 4:

Christiansen further discloses to perform forward error correction decoding in accordance with ITU-T G.975 (paragraph [0021]).

(5) with regard to claim 5:

Christiansen further discloses to identify the justification command in compliance with ITU-T G.709 (paragraph [0021]).

(6) with regard to claims 6 and 34:

Christiansen further discloses the input signal comprises an OTN frame (paragraph [0021]).

(7) with regard to claim 8:

Christiansen further discloses selectively update a phase account to account for a phase impact of a negative justification command in response to a negative justification command (paragraphs [0037] and [0038], the sum stored in accumulator 710 is a phase account; an incremental decrease in the justification value sum is equivalent to receiving a negative justification command).

(8) with regard to claims 9, 10, 13, 25, 26, 28 and 29:

Christiansen discloses updating the phase account according to an amount of clock signal phase shift adjustment in response to a first value of the phase account and waiting for a next justification command in response to a second phase account value to allow a phase adaptation (paragraphs [0037] and [0038], the sum stored in accumulator 710 is a phase account; an incremental increase in the justification value sum is equivalent to receiving a positive justification command).

(9) with regard to claims 40 and 41:

Christiansen further discloses the interface is compatible with IEEE 1394 and PCI (paragraph [0021]).

(10) with regard to claims 42 – 44:

Christiansen further discloses the data processor is to perform media access control in compliance with IEEE 802.3; to perform optical transport network de-framing in compliance with ITU-T G.709; and to perform forward error correction processing in compliance with ITU-T G.975 (paragraph [0021]).

(11) with regard to claims 45 - 47:

Christiansen further discloses a switch fabric, a packet processor or a memory device coupled to the interface (paragraph [0021]).

(12) with regard to claims 15, 35 and 48:

Christiansen discloses a system and method, comprising: an elastic store device (510, on Fig. 5) coupled with an interface (inherent to 510 receiving to data) to selectively transfer data (DATA on Fig. 5) based on a first clock signal (RCLK on Fig. 2); a justification source (520 on Fig. 5) to selectively provide a justification command (ADJUST on Fig. 5) based on a phase comparison between second and third clock signals (CLK2 is the second clock signal; and RCLK2 in the third clock signal); a transform device (520 on Fig. 5; paragraph [0030]).) to selectively modify the phase of the second clock signal in response to the justification command; and a wrapper device (510 on Fig. 5) to selectively combine the justification command with the data based on the first clock signal and to provide the combination (OUTPUT on Fig. 5); a data processor (340 on Fig. 4) coupled with the interface and the wrapper device.

(13) with regard to claims 16 and 36:

Christiansen discloses selectively add a cycle to the first clock signal in response to a negative justification command (paragraphs [0038] – [0046]; an incremental decrease in the justification value sum is equivalent to receiving a negative justification command) and a phase account being low enough to allow a phase adaptation (paragraph [0037]; the sum stored in accumulator 710 is a phase account, and because it is represented by A modulo M, the value of the sum is limited to be between 0 and M).

(14) with regard to claims 17 and 37:

Christiansen discloses selectively remove a cycle from the first clock signal in response to a positive justification command (paragraphs [0038] – [0046]; an incremental increase in the justification value sum is equivalent to receiving a positive justification command) and a phase account being enough to allow a phase adaptation (paragraph [0037]; the sum stored in accumulator 710 is viewed as a phase account, and because it is represented by $A \bmod M$, the value of the sum is limited to be between 0 and $M - 1$, so the value of sum is larger than 0).

(15) with regard to claim 18:

Christiansen discloses performing forward error correction decoding in accordance with ITU-T G.975 (paragraph [0021]).

(16) with regard to claims 19 and 53:

Christiansen discloses providing the combination in accordance with ITU-T G.709 (paragraph [0021]).

(17) with regard to claim 20:

Christiansen discloses the second clock signal is based on the first clock signal (the second clock CLK2 is adjusted based on the first clock RCLK).

(18) with regard to claim 23:

Christiansen discloses a phase comparator (520) to selectively provide the phase comparison, wherein the phase comparison is between the second and third clock signals.

(19) with regard to claim 24:

Christiansen discloses selectively update a phase account to account for a phase impact of a negative justification command in response to a negative justification command (paragraphs [0037] and [0038], the sum stored in accumulator 710 is a phase account; an incremental decrease in the justification value sum is equivalent to receiving a negative justification command).

(20) with regard to claim 27:

Christiansen discloses selectively update a phase account to account for a phase impact of a positive justification command in response to a positive justification command (paragraphs [0037] and [0038], the sum stored in accumulator 710 is a phase account; an incremental increase in the justification value sum is equivalent to receiving a positive justification command).

(21) with regard to claims 50, 51 and 54:

Christiansen teaches the uses of IEEE 1394, PCI and ITU-T G.975 (paragraph [0021]).

(22) with regard to claim 55:

Christiansen teaches a switch fabric coupled to an interface (paragraph [0021]).

(23) with regard to claim 56:

Christiansen teaches a packet processor coupled to an interface (paragraph [0021]).

(24) with regard to claim 57:

Christiansen teaches a packet processor coupled to an interface (paragraph [0021]).

Allowable Subject Matter

9. Claims 21, 22, 39 and 49 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicants' remarks have been fully reviewed. No argument needs to be addressed.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BO HUI A. ZHU whose telephone number is (571)270-1086. The examiner can normally be reached on Mon-Thur 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BZ
Examiner
June 3, 2008

/Hassan Kizou/
Supervisory Patent Examiner, Art Unit 2619